

19981228.qrp v01_n319.qrl.981228

Date: Mon, 28 Dec 1998 19:03:17 EST

From: qrp-l@Lehigh.EDU

To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>

Subject: QRP-L digest 1319

QRP-L Digest 1319

Topics covered in this issue include:

- 1) [28174] FB40 on the air
by kf2ph@juno.com (Nick J Franco)
- 2) [28175] AL7FS on 10m sunday
by Jim <kj5tf@madisoncounty.net>
- 3) [28176] RAC Contest Results - W5VB0
by Brian Kassel <bkassel@dancris.com>
- 4) [28177] QRO radios
by "Frank Grigaliunas" <fgrig@iea.com>
- 5) [28178] FS TT 234 Processor and Electret Mic
by "Bill Legge, NT1R" <wlegge1@maine.rr.com>
- 6) [28179] 6m/10m handie talkies (military) FS
by W7LS <w7ls@blarg.net>
- 7) [28180] My England trip and operating there.
by Marty Hartwell <meh@cbsms1.cb.lucent.com>
- 8) [28181] Re: RAC Contest Results - W5VB0
by Peter Larsen <larsenp@cadvision.com>
- 9) [28182] Novelty QRPp Contest - Rules - Final
by "Bob Kellogg" <ae4ic@nr.infi.net>
- 10) [28183] Re: [azqrp] FYB0 in AZ
by Joe Gervais <vole@primenet.com>
- 11) [28184] 44 mag??
by tom whalen <whalen@swcp.com>
- 12) [28185] FYB0??
by tom whalen <whalen@swcp.com>
- 13) [28186] Re: [azqrp] FYB0 in AZ
by Joe Gervais <vole@primenet.com>
- 14) [28187] FDIM Dates, Please
by "J. Ervin Bates" <kb8tnq@voyager.net>
- 15) [28188] Pixie2 Variable Power Mod.
by we6w@juno.com (Ed Loranger)
- 16) [28189] Re: Help - CD Callbooks
by Monte Stark <ku7y@dri.edu>
- 17) [28190] Re: FDIM Dates, Please
by Hank Kohl K8DD <k8dd@contesting.com>
- 18) [28191] Fireball
by dave_epps@juno.com
- 19) [28192] FS: IC737A, FT530, PS, TNC etc.

- by Niel Skousen <skousen@srv.net>
- 20) [28193] 160m Contest
by Monte Stark <ku7y@dri.edu>
- 21) [28194] Mtech???
by David Corkarn <dcork@dc.infi.net>
- 22) [28195] Re-subscribed to QRP-L
by n4so@juno.com (charles k brown)
- 23) [28196] FS: TenTec Argosy I
by DaveLeDuc@aol.com
- 24) [28197] FS,,,,,,,,,QRP
by RangerSF5@aol.com
- 25) [28198] sw40
by andymeng@juno.com (Andy C Meng)
- 26) [28199] Mtech???
by "Wilford D. Lindsey" <70511.3041@compuserve.com>
- 27) [28200] Embeddeed Research email address?
by w4pj@w4bkx.ampr.org (Scott)
- 28) [28201] Re: [azqrp] FYBO in AZ
by "Steve/n0tu" <n0tu@webaccess.net>
- 29) [28202] Re: Embeddeed Research email address?
by W5TB <w5tb@softhome.net>
- 30) [28203] Re: How *Order* DL Sierra PA?
by John Evans - N0HJ <jae@codenet.net>
- 31) [28204] Re: Mtech???
by Scott Gregson - KC7MAS <emtech@steadynet.com>
- 32) [28205] 2 rigs later - Help!
by vlantz@juno.com (Vann G Lantz)
- 33) [28206] Emtech Orders
by Scott Gregson - KC7MAS <emtech@steadynet.com>
- 34) [28207] Aluminum Pushup Mast?
by Chuck Carpenter <w5usj@unicomp.net>
- 35) [28208] Re: 2 rigs later - Help!
by jeffrey davis <jeff@jehosophat.com>
- 36) [28209] Dual Gate MOSFET Question
by "Brad Hernlem" <alihernlem@hotmail.com>
- 37) [28210] Transistor help - thanks! (and a comment)
by Robspark@aol.com
- 38) [28211] CW Readers ? Looking for suggestions / comments
by "James Apple" <wb1dog@hotmail.com>
- 39) [28212] Re: sw40
by K0RWC <rwc@frii.com>
- 40) [28213] Re: 2 rigs later - Help!
by K0RWC <rwc@frii.com>
- 41) [28214] FOX: Team scores (fwd)
by Bruce Rattray <rattray@gpfn.sk.ca>
- 42) [28215] Re: Dual Gate MOSFET Question
by Chris Trask <ctrask@primenet.com>
- 43) [28216] First QRP DX!

by K0RWC <rcw@frii.com>
44) [28217] G-QRP WS
by Zack Lau <zlau@arrl.org>
45) [28218] Re: Dual Gate MOSFET Question
by "Brad Hernlem" <alihernlem@hotmail.com>
46) [28219] Re: Dual Gate MOSFET Question
by Chris Trask <ctrask@primenet.com>
47) [28220] FOX: Team scores (fwd)
by Bruce Rattray <rattray@gpfn.sk.ca>
48) [28221] Re: G-QRP WS
by "Michael A. Gipe" <mgipe@reliablemeters.com>
49) [28222] RE: Aluminum Pushup Mast?
by Denton Bramwell W7DB <Denton@Bramwell.Org>
50) [28223] FS: Icom 735
by "Michael A. Gipe" <mgipe@reliablemeters.com>
51) [28224] FB40 Technical Notes [Long]
by "George Heron" <gheron@idt.net>
52) [28225] Re: RAC Contest Results - W5VBO
by Peter Larsen <larsenp@cadvision.com>
53) [28226] RE: Aluminum Pushup Mast?
by "Wilford D. Lindsey" <70511.3041@compuserve.com>
54) [28227] Standard Signal Generator
by Michael Maiorana <mikemo@ibm.net>
55) [28228] Atlanticon registration update
by "Dave Maliniak" <dmaliniak@penton.com>
56) [28229] OOPS? Anyone leave their keyer ON?
by we6w@juno.com (Ed Loranger)
57) [28230] 11-2-10-meter test data (corrections)
by "David D. Meacham" <ddm@datatamers.com>
58) [28231] RE: Aluminum Push-up Mast
by David Gauding <david.gauding@bbs.galilei.com>
59) [28232] Dayton Hamvention
by dfirlik@juno.com
60) [28233] Re: First QRP DX!
by "Toru Kato JG1RVN" <jg1rvn@inv.co.jp>
61) [28234] Re: Dayton Hamvention
by Bruce Muscolino <w6toy@erols.com>
62) [28235] K0EVZ FOX Log (final)
by "Wilford D. Lindsey" <70511.3041@compuserve.com>
63) [28236] QRM on 7040 still there... Bummer.
by we6w@juno.com (Ed Loranger)
64) [28237] Making PC Boards
by "Gene Hall" <evhall@ix.netcom.com>

Date: Sun, 27 Dec 1998 19:01:37 -0500
From: kf2ph@juno.com (Nick J Franco)

To: qrp-1@lehigh.edu, klqrp@waterw.com
Subject: [28174] FB40 on the air
Message-ID: <19981227.190138.-109317.0.kf2ph@juno.com>
MIME-Version: 1.0
Content-Type: text/plain
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

I just built my FB40 for 40 meters and it works FB. I had to build a quicky T/R switch external to the rigs so I could use the same antenna for the FB40 and a receiver. So with everything in place I'm ready to try for a 2x FB40 QSO. Now there's some kind of SSB contest on 7.080 so it doesn't look too promising.

The FB40 and the manual is great. I read through the entire manual first and couldn't believe what was in there. Great work guys! I may make a mod later to the FB40 to put in jumper pins (like a computer board) and switch the L's and C's for the filter. This way with a flip of a switch and moving of a jumper you can work all four bands with this little gem.

OK - so get on the air on 7.080 and let's get the show on the road guys :-)
It was bad enough waiting until Christmas to open my little package, now I want to make some Q's on it ;-)

72,

Nick - kf2ph . .

----- <>----- <>----- <>----- <>----- <>

- Nicholas J. Franco KF2PH QRP-L # 13 LIQRP # 2 ARS
128
- Worship Leader/Music Director Church of the Nazarene -
Patchogue, NY
- Chairman, BSA Troop 543 - Trail Blazer District - Suffolk County
Council

Date: Sun, 27 Dec 1998 18:22:06 -0600
From: Jim <kj5tf@madisoncounty.net>
To: al7fs@qsl.net
Cc: qrp-1@Lehigh.EDU
Subject: [28175] AL7FS on 10m sunday
Message-ID: <3686CF2E.11D6@madisoncounty.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Content-Transfer-Encoding: 7bit

Jim,

Nice to wrk you today while i was in my truck on 10m! It was 21:22Z when we chatted. Amazing we could make the QRPx2 QSO with me in the mobile and converted CB antenna! You were 579.

My HTX-100 was on 4 watts.. useing a Atomic keyer, and hb single lever paddles. I was parked.

Thanks again! Jim Hale KJ5TF/QRP AR QRP#2

Date: Sun, 27 Dec 1998 17:25:27 -0700
From: Brian Kassel <bkassel@dancris.com>
To: QRP-L <QRP-L@lehigh.edu>
Subject: [28176] RAC Contest Results - W5VB0
Message-ID: <3686CFF7.B0174E90@dancris.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Gangue:

Had a fun time this weekend doing the RAC Canadian contest.
I operated only CW, 5 watts, search and pounce (S&P) only.

	80	40	20	15	10	ALL
CW QSO's	12	15	40	30	16	113
CW DOMLT	4	5	7	7	5	28

Rig: Ten Tec Argosy Digital, 5 Watts output.

Antennas:

3 EL triband beam up 33 feet. (on 20/15/10)
80M horizontal loop up 20 feet (on 80/40) fed with ZM-1
Butternut HF-2/64 radials - ground mounted. (on 80/40)

I wound up with a raw score of 27,384.

Total operating time was about about 10 hours out of the possible 24.

I was able to get quite a few of the special RAC stations, including (finally) VY1RAC. What a pileup!

I didn't work all of the possible provinces. Just never heard NS and NF at all.

Conditions seemed only fair.

Nice contest, nice folks too.

Thanks to our friends up north for a fun and different kind of contest.

Brian W5VB0

AZ ScQRPions

Date: Sun, 27 Dec 1998 16:31:19 -0800
From: "Frank Grigaliunas" <fgrig@iea.com>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [28177] QRO radios
Message-ID: <199812280032.QAA21262@comtch.iea.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

I've had my first phone QSO, and I've developed a taste for it. I'm wondering what it would be like to have one of those entry-level, 80-10, 100-watt all- (or most) modes transceivers.

I was looking at Burqhardt's used list, and saw a couple possibilities. My concern is where should I look for to find out about models of previous years and is Burqhardt a safe bet, or should I also look elsewhere?

Any help would be appreciated.

Frank, AB7YT

Frank and Karen Grigaliunas, W. 1816 Dean, Spokane, WA 99201
fgrig@iea.com -==*- (509) 326-7147 -==*- <http://www.iea.com/~fgrig/>
"I'm streaming on a white Christmas, writing my name out in the snow."

Date: Sun, 27 Dec 1998 19:41:19 -0500
From: "Bill Legge, NT1R" <wlegge1@maine.rr.com>

To: <tentec@contesting.com>
Cc: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [28178] FS TT 234 Processor and Electret Mic
Message-ID: <199812280040.TAA10438@proxye3-atm.maine.rr.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

I have a Ten Tec Speech Processor Model 234 and the matching Electret mic
forsale for \$75. plus shipping. Please email me direct if interested.
Thanks. Bill, NT1R.

Date: Sun, 27 Dec 1998 17:09:26 -0800
From: W7LS <w7ls@blarg.net>
To: qrp-1@lehigh.edu
Subject: [28179] 6m/10m handie talkies (military) FS
Message-ID: <3686DA46.31C9@blarg.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Hi, gang. I have a couple of military handie talkies to part with. They
are called 'Village Radios'. One is a model HT-1 and the other is a HT-2,
both made by Hallicrafters in the 1960's. The HT-1 covers 27-50 MHz, one
channel, fm, 1/2 watt output, and uses 8 D cells. It has a built-in whip
antenna (longish). The HT-2 is the same, but also includes facility for
vhf AM for aircraft. These are both brand new, never used. I have them in
the original shipping cartons.

These radios have an interesting history. The US Army issued
these to the South Vietnamese villagers in the northern part of the
country to alert us of North Vietnamese troop movements. The HT-1 was
normally used around 38 MHz for ground to ground communications, while
the HT-2 could do that, as well as communicate with our airplanes on VHF
AM.

These rigs are jet black, about 3 inches square, and a foot high,
with the whip antenna coming off the side. They have external antenna
connectors, too. Typical military construction, but also light weight. I
have the schematic for them, and some info.

Dandy 10 meter rig or even 6 meters. I'm listing them for \$100
for the HT-1 and \$150 for the HT-2. I would consider trades for 80 meter
or 75 meter rigs, too. Whatcha got? <oooooh. Bad English.>

73 de Jim, W7LS

Date: Sun, 27 Dec 1998 20:14:58 -0500
From: Marty Hartwell <meh@cbsms1.cb.lucent.com>
To: "'qrp-1@lehigh.edu'" <qrp-1@lehigh.edu>
Subject: [28180] My England trip and operating there.
Message-ID: <01BE31D5.95763660@martyh1.lra.lucent.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Content-Transfer-Encoding: quoted-printable
Content-Transfer-Encoding: quoted-printable

Hello All

I have received a few replies to my query on operating in the UK. It =
seems everyone agrees that I will need a reciprocal license. I will go =
over to the ARRL web page to see if I can find out what I need to do.=20

I had found the FCC web page <http://www.fcc.gov.com> on about the =
20th of Dec. I filled out the electric form to renew. My license expired =
on the 27th of Dec. The electronic form said as long as the license =
wasn't pass the expire date and within 90 days before I could renew on =
the web. Well on Saturday I received my new license dated Dec. 21st. I =
think I need this to send copies to the UK with the correct paper work =
to get the reciprocal. I am going to see if I can have the paper work =
ready when I am over there for my presentation on Jan. 14th. If so maybe =
I can hand carry the papers over and get that done while I am there or =
at least started.

I will post more information as time goes on.

Marty

Date: Mon, 28 Dec 1998 01:24:12 +0000
From: Peter Larsen <larsenp@cadvision.com>
To: bkassel@dancris.com
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [28181] Re: RAC Contest Results - W5VBO
Message-ID: <3686DDBC.35179B8B@cadvision.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Here I sit burnt out. I hope this all makes sense.

40 meters only. All Provinces and territories on both CW and SSB!
Doin' the happy dance over that!!
about 170 Qs, 20 mults. Lots of fun and rag chewing. =about 32K

Hi-Gain dipole at 84 feet
Kenwood TS-690SAT
Small black box (bad dog... bad dog.. turn that thing OFF)
Hope you all had fun in the contest.

--

73
Peter
VE6YC D021wc

Drinking and calculus don't mix. Never drink and derive!!

Date: Sun, 27 Dec 1998 21:23:53 -0500
From: "Bob Kellogg" <ae4ic@nr.infi.net>
To: "qrpforum" <qrp-l@lehigh.edu>
Cc: "klqrp" <klqrp@waterw.com>
Subject: [28182] Novelty QRPp Contest - Rules - Final
Message-ID: <199812280225.VAA26787@fh106.infi.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Gang,

The various rule changes have been covered in previous notes, but this is to put all of the rules in one place.

There will be at least five club stations on the air during this contest handing out X10 multipliers for all their contacts. Look for KC0ENC (or KQ0RP), N3EPA, NQ7RP, WQ4RP, WQ2RP.

***** Novelty QRPp contest rules: *****

Dates/Time:

The contest will be held over a three day period, Tuesday, December 29th, through Thursday, December 30, 1997. Hours will be 0230Z to 0430Z each night. (Monday through Wednesday evenings in the U.S.) You will report your best two days operating periods. You can operate for two hours each of the three nights, but you can only include your best two nights in your

contest log.

Frequencies:

80 meters and 40 meters. Common frequencies for this contest are: 3.560, 3.686, 3.715, 7.040, 7.122 MHz.

Exchange:

The exchange will be RST, State/Province/Country, a 2 letter rig code and Name. The Rig Code will be used from the list below. A Power designation may be added to the rig code as indicated below.

Power Classes:

Points are assigned to each QSO, based on the power output of the rigs used. There are three power classes:

=< 500mW (Pixies, Tixies, KnightSMiTes)

=< 1 Watt (40-9ers)

=< 5 Watts (QRP rigs)

If you are using one of the above rigs and have modified it for higher power, you must control the power so that it fits into it's category. Or, if you can get 1.5 watts out of your Pixie, you can run 1.5 watts and enter it as HB.

If you are running a homebrew rig, your rig code will be HB followed by your power class.

HB500 will be =<500mW

HB1 will be =<1 Watt

HB5 will be =< 5 Watts

Other rigs can do the same. A Sierra running 1 watt would have the rig code SA1.

Scoring:

Points are based on the power of the two stations who complete the contact.

=< 500mW to =< 500mW	(Pixie to Pixie)	6 points
=< 500mW to 1 Watt	(Pixie to 40 9er)	4 points
=< 500mW to <5 Watts	(Pixie to QRP)	2 points
=< 500mW to >5 Watts	(Pixie to QR0)	1 point

1 Watt to 1 Watt	(40 9er to 40 9er)	4 points
1 Watt to <5 Watts	(40 9er to QRP)	2 points
1 Watt to >5 Watts	(40 9er to QR0)	1 point

Multiplier = SPC (States/Provinces/Countries) worked.

Working any QRP club station multiplies that QSO points by 10!!!

For example: A "Pixie to QRP" QSO would be 2 points X10 = 20 points. The club station gets the standard points. The other station gets the bonus points.

Final Score is QSO points total times SPC multiplier. SPC counts only once regardless of bands.

Rig Codes:

Pixie	PX
Tixie	TX
40 9er	49
80 9er	89
A&A	AA
Green Mtn	GM
Home Brew	HB
Hands Electronics	HE
HeathKit	HW
Icom	IC
Index Labs	IL
Kenwood	KW
KnightSMiTe	KS
LCK	LC
MFJ	MF
Norcal	NC
Northeast	NE
Northwest	NW
Oak Hills	OH
Oner	ON
Sierra	SA
S&S Rigs	SS
Small Wonder	SW
TenTec	TT
Wilderness Radio	WR
Yaesu	YS

Awards:

1. Highest score using a Pixie.
2. Highest score using a 40 9er.
3. Highest score using other rigs.

Award Certificates will be issued for the first three places. We are working on some other prizes which may be announced later.

One person may only win one award. In the event that one person qualifies for more than one award, they will receive the one of the greatest value.

In cases of ties, a coin will be flipped. The contest chairman, Bob Kellogg, may participate but is not eligible for prizes and awards.

Reporting:

Send your logs before January 30, 1998 to
Bob Kellogg, AE4IC
4708 Charlottesville Rd.
Greensboro, NC 27410
Email logs to AE4IC@NR.INFI.NET

Date: Sun, 27 Dec 1998 19:31:44 -0700 (MST)
From: Joe Gervais <vole@primenet.com>
To: n7kt@earthlink.net
Cc: azqrp@extremezone.com, qrp-1@Lehigh.EDU
Subject: [28183] Re: [azqrp] FYBO in AZ
Message-ID: <199812280231.TAA15530@usr08.primenet.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=US-ASCII
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Roger (N7KT) wrote:

> Once again I have the cabin available in Northern Arizona (Pinetop) for
> FYBO. I plan on opening the place up on the 5th, and can handle a bunch
> of guests....think we had a dozen or so all told last time.

Wahoo! Thanks Roger. There's a chance I'll be
spending that Fri-Sat snow camping in the area,
but I'll definitely be dropping by to see the
gang, make some garlic bread, thaw out. :)

Just starting to catch up on the holiday email.
Hope yours was a fun one!

Cheers de AB7TT,

-Joe, vole@primenet.com, AZ ScQRPions (Phoenix)

"If it ain't fun, you ain't doin' it right!" -The AZ ScQRPions

Date: Sun, 27 Dec 1998 19:46:56 -0700
From: tom whalen <whalen@swcp.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [28184] 44 mag??

Message-ID: <3686F120.168F@swcp.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

QRPer's!

Does anyone know when the 44 mag will be made available? Just checked out the page at HB Electronics, and fell in love with the looks and the stats on that rig..And the price is fb too!

72, Tom WB5QYT...no Fireball qso's yet (:

Date: Sun, 27 Dec 1998 19:50:46 -0700
From: tom whalen <whalen@swcp.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [28185] FYBO??
Message-ID: <3686F206.7969@swcp.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

QRPer's!

Any NM qrp'er's have any plans of going anywhere to operate FYBO? I know Paul is heading north, Jay....where are you going? Would like to get something together this year. Missed out the last couple of years. Brian VBO, where are you going this year?

72, Tom...WB5QYT...

Date: Sun, 27 Dec 1998 19:59:28 -0700 (MST)
From: Joe Gervais <vole@primenet.com>
To: qrp-1@Lehigh.EDU
Subject: [28186] Re: [azqrp] FYBO in AZ
Message-ID: <199812280259.TAA16535@usr08.primenet.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=US-ASCII
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Howdy Folks,

> Wahoo! Thanks Roger. There's a chance I'll be
> spending that Fri-Sat snow camping in the area,

Sorry about that - was meant to be private email
to Roger. Been away from the mailbox too long,
forgot which reply was to sender vs. CC: to all
recipients. :)

But the Happy Holidays part still stands. ;-)

Cheers de AB7TT,

-Joe, vole@primenet.com, AZ ScQRPions (Phoenix)

"If it ain't fun, you ain't doin' it right!" -The AZ ScQRPions

Date: Sun, 27 Dec 1998 22:51:38 -0500
From: "J. Ervin Bates" <kb8tnq@voyager.net>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [28187] FDIM Dates, Please
Message-ID: <36870049.A2D5AC22@voyager.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

WOW! Are we really THAT close to Dayton and FDIM?!

I need some dates for FDIM, please, so that we can make accomodations for
the Days Inn South. We were there last year for most of it and I am looking
forward to attending the FDIM, as well as taking in Dayton again this year.

Many thanks, in advance.

72/73,
Erv-W8ERV

Date: Sun, 27 Dec 1998 23:05:41 EST
From: we6w@juno.com (Ed Loranger)
To: qrp-l@lehigh.edu

Subject: [28188] Pixie2 Variable Power Mod.
Message-ID: <19981227.200541.8135.4.we6w@juno.com>

Well Gang, I just couldn't live with knowing that when I turn the final PA down using that 55 Ohm potentiometer, that would bring it down closer to the oscillator feedthru power, so to maintain the dynamic difference between these two, I have pulled my power mod and changed it to as follows:

20 K Ohm pot in series with 2 Kohm pot. This is the entire Collector DC current limiting pair. The 20 KOhm Pot sets the center range with the 2 Kohm set to 1 Kohm. Then I can vary +/- of that. The 20Kohm is at 500 Ohms right now. The extra range provided by the 20 Kohm pot assures me that I can really test down to the microwatt range :)

Two hours of experimenting proved to me that the oscillator can go quite low without degrading reception signal quality. However, too low and you get the classic motorboat oscillator effect. So those of you who have pixie2's that motorboat, your battery voltage/current capacitor is too low to run the oscillator. One advantage of my current set-up is that when the voltage drops on the battery, I can adjust the oscillator collector resistor down so the oscillator starts again. Of course all this oscillator manipulation brings into question what the quality of the output signal is. So I checked that out too. Just beautiful AFTER the PI Filter. Before the filter it changes dramatically. So keep them PI filters tuned up correctly before deciding on overdriving or underdriving the PA or the Oscillator.

Works FB and the spectral feedthru stays at least 35 dB down from the TX signal.

For non-pixie2 saavy individuals, the pixie2 oscillator is free-running and some signals gets to the antenna even though the PA is turned off.

Breathing easy again. And it is a lot finer adjustment than diddling** with the final.

** Diddling: A technical term :)

Gotta find more things to do to keep busy. Otherwise

it is helping with the dishes...

Reading: Now On Chapter 3-5 of "Reflections".
72/Ed Wheeeeeeeee
72, Ed WE6W QRP-Z#106 <http://www.qsl.net/we6w>
Enjoying Ham Radio every day! Santa Rosa, CA.

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com/getjuno.html>
or call Juno at (800) 654-JUNO [654-5866]

Date: Mon, 28 Dec 1998 04:08:39 +0000
From: Monte Stark <ku7y@dri.edu>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [28189] Re: Help - CD Callbooks
Message-ID: <36870447.18755D45@dri.edu>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Wow,

Thanks for all the replies.

Here is what seems to have been said.... NO ONE had any complaints about any of them.

Some liked the hamfest \$10 prices better then the \$50 prices some of the mfg's get!

All seem to work just fine with Log-EQF.

I am going to borrow one to see if I like the way the whole process goes before spending money!

Thanks to all.... FANTASTIC bunch!

cul,

--

73, Ron, KU7Y

NRA Life-----Ex W6JX0, DL4RF, N7CRV-----SOWP #5545-M
QRP ARCI #8829----NorCal #330----QRP-L #17-----ARS #49
AR QRP #150-----DM09cg-----New Washoe City, NV

Date: Sun, 27 Dec 1998 23:12:43 -0500
From: Hank Kohl K8DD <k8dd@contesting.com>
To: kb8tnq@voyager.net
Cc: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [28190] Re: FDIM Dates, Please
Message-ID: <3.0.5.32.19981227231243.00943c90@192.0.0.1>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

The Dayton Hamvention is:
May 14 15 16 17 and I assume
TH FR SA SU

>From the QRP-ARCI web page (<http://www.qrparci.org>)
"FOUR DAYS IN MAY" 99 QRP CONFERENCE

The Amateur Radio QRP Event of 1999

QRP Amateur Radio Club, International (QRP-ARCI) proudly announces the fourth annual "Four Days In May " QRP Conference commencing Thursday, May 13, 1999 - the first day of four festive days of 1999 Dayton Hamvention activities. Mark your calendar for this extra bonus day and register early for this not-to-be-missed QRP event of 1999.

QRP-ARCI also has a block of rooms at Days Inn South. \$72 per night + taxes. I'm not sure what they are getting for rooms that are not part of the block. To get on the room list, send me an email with:

NAME:

CALLSIGN:

NIGHTS:

NR OF BEDS:

SMOKING Y/N:

ADDRESS:

HOME PHONE:

WORK PHONE:

E-MAIL:

73 Hank K8DD

At 10:51 PM 12/27/98 -0500, J. Ervin Bates wrote:
>WOW! Are we really THAT close to Dayton and FDIM?!
>

* / Hank Kohl K8DD k8dd@contesting.com
* / ARRL TS http://www.tir.com/~k8dd
* / MI-QRP - Vice Pres. QRP-ARCI - Director
* / G-QRP ARRL/LM QCWA/LM QCAO/LM

Date: Sun, 27 Dec 1998 20:17:45 -0800
From: dave_epps@juno.com
To: qrp-l@lehigh.edu
Subject: [28191] Fireball
Message-ID: <19981227.203041.-112963.3.dave_epps@juno.com>
MIME-Version: 1.0
Content-Type: text/plain
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Just completed another FB40 and it operates identical to the first one.
Real finicky about what is on the output. Like the first one it wouldn't
put out
anything on 7.080 into the wattmeter and dummy load. Output through the
ZM-2 tuner to the WM-2 and antenna
shows 5 mw just like the first one. I put a socket in for the osc. module
and will put the 7.040 module in this one.
I put the MFJ antenna analyzer on the output and the l.p. filter dipped
at 9 mhz. The r.f. resistance showed 50 ohms.
Would the 5 mw be enough to drive the 2N2222 for the amp?
I need a description of the FT-50-43 toroid for the amp. (size, color ,
etc)

dave ab5pc fresno, ca.

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com/getjuno.html>
or call Juno at (800) 654-JUNO [654-5866]

Date: Sun, 27 Dec 1998 21:33:19 -0700
From: Niel Skousen <skousen@srv.net>
To: qrp-l@lehigh.edu
Cc: skousen@srv.net
Subject: [28192] FS: IC737A, FT530, PS, TNC etc.
Message-ID: <v04003a01b2ac8aa9bb9e@[12.7.221.228]>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hi Gang,

I've got a friend whose 'moderating' his HR investment. So I'm helping him w/ a bunch of equipt. This list includes some of his and mine, and I'll be recieving his equipment and checking it out before shipping to any buyer...

I don't sell much on the list, so if I'm guessing prices way wrong, please say so - I won't be offended... all prices are 'best offer' as well.

IC737A	\$850	(160-10m, 100w, Gen.coverage rx, mint <10hrs on the air)
Astron 35	75	(35amp DC supply)
MFJ-948	55	(300w all band HF w/ cross meter)
FT-530	215	(2m/450 5w, 2 avail)
Pacomm TNC	40	(packet tnc, low power)

May also have more stuff later...

Niel

Niel Skousen : WA7SSA skousen@srv.net
Idaho Falls, ID QRP-L.119 fr DN33wm

Date: Mon, 28 Dec 1998 06:10:17 +0000
From: Monte Stark <ku7y@dri.edu>
To: qrp-l <qrp-l@lehigh.edu>
Subject: [28193] 160m Contest
Message-ID: <368720C9.DED7FDCE@dri.edu>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Hi All,

Did anyone else come play?

Callsign Used : KU7Y
Operator : KU7Y

Category : QRP 4w

Default Exchange : DM09

Name : Monte Ron Stark
City/State/Zip : Washoe Valley, NV 89704
Country : United States

BAND	Raw QSOs	Valid QSOs	Points
160CW	73	69	174
Totals	73	69	174

Final Score = 174 points X 4 = 696 points.

QRP on 160m is always fun! Biggest thrill was calling CQ and having KH7R call me. Biggest disappointment was in not having a good opening to the east coast. Only a hand full of eastern stations heard and none were as strong as in the ARRL 160 test. Reading "Two Hundred Meters and Down" while calling CQ is always fun when someone calls!

--

73, Ron, KU7Y

NRA Life-----Ex W6JX0, DL4RF, N7CRV-----SOWP #5545-M
QRP ARCI #8829----NorCal #330----QRP-L #17-----ARS #49
AR QRP #150-----DM09cg-----New Washoe City, NV

Date: Mon, 28 Dec 1998 06:37:42 -0500
From: David Corkarn <dcork@dc.infi.net>
To: qrp-l@Lehigh.EDU
Subject: [28194] Mtech???
Message-ID: <103102800b2ad1d5b9692@[208.136.65.58]>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hi Folks

I just read that Roy Gregson died. I am sorry to hear that and I wish his family well. I do have a problem though. I need the instructions for my Mtech Z match tuner. I lost the instructions in a move and have not been

able to find them. Is Mtech still around and if so who is running it?

73's to all and a Marry New Year
David Corkran
KE4BAF

Date: Mon, 28 Dec 1998 02:08:27 EST
From: n4so@juno.com (charles k brown)
To: qrp-l@lehigh.edu
Subject: [28195] Re-subscribed to QRP-L
Message-ID: <19981228.065315.7799.13.n4so@juno.com>

I have resubscribed to QRP-L after being at work in the Mediterranean Sea since September. I was on the USNS PATHFINDER/NGKK, an oceanographic survey ship.
The NorCal-20 was ordered and I understand that shipping of the kits was delayed and that they will be shipped in January and am patiently waiting delivery of the kit.

Ken
N4SO@juno.com
Mobile, AL

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com/getjuno.html>
or call Juno at (800) 654-JUNO [654-5866]

Date: Mon, 28 Dec 1998 05:18:49 EST
From: DaveLeDuc@aol.com
To: qrp-l@Lehigh.EDU
Subject: [28196] FS: TenTec Argosy I
Message-ID: <ab5d9366.36875b09@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit
Content-Transfer-Encoding: 7bit

I have a TenTec Argosy I for sale. This is the rig that is switchable between QRP and 50 watts out. It covers 80 thru 10 plus 30 meters and has the crystal calibrator and audio filter options. The case has a few scratches on top

otherwise is in good shape. The PT0 is very stable. \$275 plus shipping from 03858.

73 Dave K1EPJ

Date: Mon, 28 Dec 1998 06:36:37 EST
From: RangerSF5@aol.com
To: qrp-1@lehigh.edu
Subject: [28197] FS,,,,,,,,,QRP
Message-ID: <e2363d72.36876d45@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit
Content-Transfer-Encoding: 7bit

Hi Gang,
I have a SST for 30-M and the SW40+
Maybe a Nor Cal 40-A also but as of now not sure.
Right now,I'm taking offers on the SST and the SW40+
Bob
WA2HOQ

Date: Mon, 28 Dec 1998 06:40:43 -0500
From: andymeng@juno.com (Andy C Meng)
To: qrp-1@lehigh.edu
Subject: [28198] sw40
Message-ID: <19981228.064045.12998.0.andymeng@juno.com>

Thanks so much for all the encouragement and advice on the SW40+. Almost all of you said to go and buy it, but it turns out that I don't have to. Paul, NA5N, offered to send me the \$10 more I needed to complete it, along with the Elmer 101 book. Dave, NN1G, offered to sell me one of his kits for \$40. Then Jim, K8IQY, offered to give me his SW40+ that he doesn't use much anymore! Many thanks to Paul, Dave, and Jim.

A few of you wanted to know what license class I am; I'm a General. I passed the test Nov. 21. I got my Tech+ license in May (after :(coming home from the Hamvention the same day!).

I'm sorry I didn't respond sooner, but I got a fever on Christmas in the afternoon, so I was in bed most of the time.

Andy KC8KFI

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com/getjuno.html>
or call Juno at (800) 654-JUNO [654-5866]

Date: Mon, 28 Dec 1998 07:59:43 -0500
From: "Wilford D. Lindsey" <70511.3041@compuserve.com>
To: "INTERNET:dcork@dc.infi.net" <dcork@dc.infi.net>
Cc: "+Doc W.D. Lindsey/K0EVZ" <70511.3041@compuserve.com>, //QRP-L Discussion
Group <QRP-L@Lehigh.edu>
Subject: [28199] Mtech???
Message-ID: <199812280803_MC2-64D0-E43C@compuserve.com>
MIME-Version: 1.0
Content-Transfer-Encoding: 7bit
Content-Type: text/plain; charset=us-ascii
Content-Disposition: inline
Content-Transfer-Encoding: 7bit

David:

Good news!--Emtech is very much still in business. The company is now
being run by Roy's son Scott KC7MAS and apparently has the same product
line.

They may be e-mailed at = emtech@steadynet.com

BTW, during last week's stint as Da FOX I used a ZM-2 tuner built by
Roy himself very near the end of his life. Haven't been able to locate
the docs, but if I do will gladly mail you a copy. Hopefully someone
else will have a copy in the meantime.

72/73,
--Doc Lindsey/K0EVZ
DSBF
P.O. Box 7187
Bismarck, ND 58507
E-Mail 70511.3041@compuserve.com

Date: Mon, 28 Dec 98 08:32:34 -0500
From: w4pj@w4bkx.ampr.org (Scott)
To: qrp-l@lehigh.edu
Subject: [28200] Embeddeed Research email address?
Message-ID: <1179@w4bkx.ampr.org>

It has come to my attention that Embedded Research may have filters available for older Ten-Tec rigs.
I sent a message to: embress@frontiernet.net and it came back undelivered.
Did I type it in wrong?

de Scott / W4PJ

Date: Mon, 28 Dec 1998 07:09:52 -0700
From: "Steve/n0tu" <n0tu@webaccess.net>
To: <vole@primenet.com>
Cc: "QRP-L" <QRP-L@lehigh.edu>
Subject: [28201] Re: [azqrp] FYBO in AZ
Message-ID: <003c01be326b\$c2dceae0\$82a8a3cc@S&P.www.webaccess.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

>spending that Fri-Sat snow campingJoe/ab7tt,

Hey Joe, Thicking up your blood for FYBO eh?
It ain't gonna help your score, Ya know? <grin>

FYBO isn't for the hypothermically-challenged ...or is it?
<grin>

Best in '99 ...Steve/n0tu-Monument,CO
<http://www.webaccess.net/~s&p/HRindex.htm>

Date: Mon, 28 Dec 1998 20:11:29 -0600
From: W5TB <w5tb@softhome.net>
To: w4pj@w4bkx.ampr.org, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [28202] Re: Embeddeed Research email address?

Message-ID: <3.0.3.32.19981228201129.007204b8@pop.SoftHome.net>

Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"

At 08:32 AM 12/28/98 -0500, Scott wrote:

>It has come to my attention that Embedded Research may have filters

>available for older Ten-Tec rigs.

>I sent a message to: embress@frontiernet.net and it came back undelivered.

>Did I type it in wrong?

>

Hi Scott, their web site is at <http://www.frontiernet.net/~embres/index.shtml>

and their e-mail is listed as: embres@frontiernet.net (you had one too many s's ;-)

73 T.E. 'Doc' Drake W5TB

Arlington, TX w5tb@softhome.net <http://www.qsl.net/w5tb/>

NORCAL ZOMBIE ARRL Life Member QRPARCI # 3252

QRP-L #673 FISTS # 5365

Date: Mon, 28 Dec 1998 07:26:55 -0700

From: John Evans - N0HJ <jaevans@codenet.net>

To: "Wilford D. Lindsey" <70511.3041@compuserve.com>, qrp-l@lehigh.edu

Subject: [28203] Re: How *Order* DL Sierra PA?

Message-ID: <3687952F.A6E5620E@codenet.net>

MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

Content-Transfer-Encoding: 7bit

Doc et al.,

With all the discussion and even with the DL-QRP website, I am still unclear on whether the DL-QRP-PA is even available, let alone how to order one.

sri but 72 - john - n0hj

Wilford D. Lindsey wrote:

>

> John:

>

> Question--Can I order a fully-assembled PA add-on for my Sierra? Not

> family well. I do have a problem though. I need the instructions for my
> Mtech Z match tuner. I lost the instructions in a move and have not been
> able to find them. Is Mtech still around and if so who is running it?
>
> 73's to all and a Marry New Year
> David Corkran
> KE4BAF

--

Scott Gregson - KC7MAS
emtech@steadynet.com
<http://emtech.steadynet.com>
+++++
Scott Gregson Co. / Emtech / CFC
1127 Poindexter Ave W
Bremerton, WA 98312

Date: Mon, 28 Dec 1998 08:54:57 -0600
From: vlantz@juno.com (Vann G Lantz)
To: qrp-1@Lehigh.EDU
Subject: [28205] 2 rigs later - Help!
Message-ID: <19981228.085458.10070.0.VLantz@juno.com>

A most disappointing weekend. I have been working on a pixie2 80M and finally got all of the parts (a difficult thing to do in Tuscaloosa, AL.) I built it and heard nothing. I figured that I would try to fix it later. I then turned to my FB40 that I set up for 10M. I tweaked and tuned all night, but to no avail. I think it is in the filter. I called a ham buddy of my in town, and he couldn't hear it. I tried the Pixie2 while I had him. Nothing.

2 rigs later and I still don't have it. I have had my license for almost 2 years, and I still have not been able to make an hf qso yet. I am not giving up tho. I want a WAS on my wall!!!!

If you have a FB40, don't let this discourage you. It is a most wonderful kit. Good design and an excellent manual. If I had built mine for 40M, I feel that I would have had a better chance. I am a Tech+ and can't tx on 7.080. I have just got to find a real cheap rig. I went with QRP because I could build my own, and it was cheap.

I have said all that to say this. I Will Not Give Up!!!!!! I just have to find a rig that I can get to work. Can I get any help/advice? Does any one have a rig/kit that needs/wants to find a new home? I won't say cheap, but how about VERY inexpensive.

Vann Lantz, KF4QHJ, AL
QRP-L #1790, AR QRP #241
VLantz@Juno.Com

[Http://members.xoom.com/VLantz/home.htm](http://members.xoom.com/VLantz/home.htm)

"If there is no God, then who pops up the next Kleenex in the box?"

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com/getjuno.html>
or call Juno at (800) 654-JUNO [654-5866]

Date: Mon, 28 Dec 1998 06:57:05 +0000
From: Scott Gregson - KC7MAS <emtech@steadynet.com>
To: qrp-l <qrp-l@lehigh.edu>
Subject: [28206] Emtech Orders
Message-ID: <36872BC1.20B8836F@steadynet.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Please send all Emtech orders to the address in the sig of this email.
If you send it the the old Preble St address there could be up to a
month delay before we receive it. The Post Office of today is
definitely better than that of 15 years ago, but they still have
troubles with forwards.

--
Scott Gregson - KC7MAS
emtech@steadynet.com
<http://emtech.steadynet.com>
+++++
Emtech
1127 Poindexter Ave W
Bremerton, WA 98312

Date: Mon, 28 Dec 1998 09:06:42 -0600
From: Chuck Carpenter <w5usj@unicomp.net>
To: qrp-l@Lehigh.EDU
Subject: [28207] Aluminum Pushup Mast?
Message-ID: <3.0.1.32.19981228090642.00688b28@mail.unicomp.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

QRP-Lers,

Anyone aware of an aluminum pushup mast (36 to 40 ft) similar to the heavy steel ones? My intention is to use it to support an inverted V.

I found a variety of aluminum antenna masts via the internet but none of the light duty pushup variety. Telescoping tubing sections would work too I suppose.

Thanks!

72/73, Chuck, W5USJ, Point, TX EM22cv -- ARCI #5422 QRP-L #1306

Date: Mon, 28 Dec 1998 10:11:38 -0500
From: jeffrey davis <jeff@jehosophat.com>
To: Vann G Lantz <vlantz@juno.com>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [28208] Re: 2 rigs later - Help!
Message-ID: <19981228101138.A9823@jehosophat.com>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii

Quoting Vann G Lantz (vlantz@juno.com) [981228 08:54]:

>
> 2 rigs later and I still don't have it. I have had my license for almost
> 2 years, and I still have not been able to make an hf qso yet. I am not
> giving up tho. I want a WAS on my wall!!!!
>
> If you have a FB40, don't let this discourage you. It is a most
> wonderful kit. Good design and an excellent manual. If I had built mine
> for 40M, I feel that I would have had a better chance. I am a Tech+ and
> can't tx on 7.080. I have just got to find a real cheap rig. I went
> with QRP because I could build my own, and it was cheap.

Vann,

If possible, get a rig that has 80 or 40 meter capability. You will find a generous number of folks in the Novice segments of those bands and you will work 'em until your fingers go numb! You will get that WAS certificate before you know it. I'd love to give you Indiana.

See you on CW!

72/73,

--

Jeff N9AVG
QRP ARCI 9756 QRP-L 1640

Date: Mon, 28 Dec 1998 07:32:44 PST
From: "Brad Hernlem" <alihernlem@hotmail.com>
To: qrp-l@lehigh.edu
Subject: [28209] Dual Gate MOSFET Question
Message-ID: <19981228153244.25035.qmail@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain

I have a question about the functions of the two gates in a dual gate MOSFET. I recently acquired several dozen of these devices and don't have any specs on them. These look like an MPF-131 described on rec.radio.amateur.homebrew by Chuck Adams a few years ago and the pinout seems to be the same (maybe). I tested one of these by measuring the drain current while adjusting the voltages applied to the gates. This was done one gate at a time, holding the other at 0V relative to source. The results are as follows:

Voltage Applied To Gate	Drain Current (G1 at 0V)	Drain Current (G2 at 0V)
-0.6	1.49 mA	2.09 mA
-0.5	1.92	2.68
-0.4	2.37	3.13
-0.3	2.85	3.53
-0.2	3.33	3.83
-0.1	3.82	4.09
0.0	4.28	4.30
0.1	4.75	4.49
0.2	5.22	4.64
0.3	5.69	4.79
0.4	6.11	4.90

As you can see from this data, when G1 is hold at 0V and G2 is varied, the change in current follows G2 in a very linear fashion while the effect of G1 with G2 at 0V is quite different, with the slop decreasing as the voltage becomes more positive.

Is this normal behavior for a dual gate MOSFET? Should the two gates behave differently?

Thanks for your help.

Brad

Get Your Private, Free Email at <http://www.hotmail.com>

Date: Mon, 28 Dec 1998 10:41:20 EST
From: Robsparks@aol.com
To: qrp-l@lehigh.edu
Subject: [28210] Transistor help - thanks! (and a comment)
Message-ID: <7869c281.3687a6a0@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit
Content-Transfer-Encoding: 7bit

Folks,

On Saturday I asked the list a question on transistor replacement and received no fewer than 15 responses of help, comments, pointers, and even an offer to send me the needed transistors. Though the question was not QRP-related, I wanted to thank everyone for their help. How unusual it is in today's world to find a group so willing (eager!) to help! I, for one, am counting my blessings for a wonderful year, and also for being a small part of such a great group. Thanks again!

Sincerely,

Bob AB5ZD QRP-L #185

Date: Mon, 28 Dec 1998 07:48:11 PST
From: "James Apple" <wb1dog@hotmail.com>
To: qrp-l@Lehigh.EDU
Cc: japple@tp.net
Subject: [28211] CW Readers ? Looking for suggestions / comments
Message-ID: <19981228154811.6456.qmail@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain

I'm looking for a cw reader to help me get my code speed up faster.

Right now I'm 100% at 13-15 and 80% at 16-18. I'd like to use a reader to make up the missing 20 % at higher speeds. This way I can enter qso's at 18 or more and not have to ask for repeats if I miss a word or phrase here and there.

I don't have a computer I can use so that limits my choices to stand alone models. And unfortunately right now I don't have the time to build the reader that was in QST recently.

So far I seen adds for the MFJ 462B and a couple of models from MicroCraft.

Any feedback on these units or others ?

Thanks in Advance

Happy Holidays

Get Your Private, Free Email at <http://www.hotmail.com>

Date: Mon, 28 Dec 1998 08:52:53 -0700
From: KORWC <rwk@frii.com>
To: andymeng@juno.com, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [28212] Re: sw40
Message-ID: <3.0.5.32.19981228085253.0081a790@mail.frii.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hello Andy:

At 06:40 AM 12/28/98 -0500, you wrote:

>Thanks so much for all the encouragement and advice on the SW40+. Almost
>all of you said to go and buy it, but it turns out that I don't have to.
>Paul, NA5N, offered to send me the \$10 more I needed to complete it,
>along with the Elmer 101 book. Dave, NN1G, offered to sell me one of his
>kits for \$40. Then Jim, K8IQY, offered to give me his SW40+ that he
>doesn't use much anymore! Many thanks to Paul, Dave, and Jim.
>

So are you going to build a new kit, or accept the B offer from Jim?
Building a kit is a wonderful learning experience, I highly recommend it.
OTH, getting on the air is fun too! Here's an idea: Take the assembled
sw-40+ and build another one for 30 or 20 meters.

If your getting on the air this week let us know. Lots of us are off work this week & I for one will be spending a far bit of time on the air.

>A few of you wanted to know what license class I am; I'm a General. I
>passed the test Nov. 21. I got my Tech+ license in May (after :(coming
>home from the Hamvention the same day!).
>

Congrats & keep up the good work.

>I'm sorry I didn't respond sooner, but I got a fever on Christmas in the
>afternoon, so i was in bed most of the time.
>

Hope you feeling better.

72/3 KORWC
Rod Cercone, QRP-L #1764.
Fort Collins, CO
da di dah

Date: Mon, 28 Dec 1998 09:08:11 -0700
From: KORWC <rwc@frii.com>
To: vlantz@juno.com, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [28213] Re: 2 rigs later - Help!
Message-ID: <3.0.5.32.19981228090811.00805490@mail.frii.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

At 08:54 AM 12/28/98 -0600, you wrote:

>A most disappointing weekend. I have been working on a pixie2 80M and
>finally got all of the parts (a difficult thing to do in Tuscaloosa, AL.)
> I built it and heard nothing. I figured that I would try to fix it
>later. I then turned to my FB40 that I set up for 10M.
>

Know the feeling, I had trouble with my OHR100A for 20m. Took several days but after pouring over the schematic, testing, probing, wringing my hads in anguish I finally found the problem, a poor solder joint! Very subtle & difficult to see. But the rig is fixed and working well, many FB QSO's.

>...I want a WAS on my wall!!!!

>

If you get on 40 or 15 post hear, I listen for your call & give you Colorado.

>...I have just got to find a real cheap rig. I went
>with QRP because I could build my own, and it was cheap.

>

>I have said all that to say this. I Will Not Give Up!!!! I just have
>to find a rig that I can get to work. Can I get any help/advice? D

Nothing to sell here, but watch for an OHR, Norcal or SW-40+ deal, all good
rigs you should have good luck with. I have the OHR100A for 20M, love it.
I've also orderd a Norcal 40 after seeing a friends. I'm also going to
build the SW+ for 30 meters, sometime in early 99.

Keep at it and if you need help post here, lot's of fine folks on this list
that are willing to help.

HAPPY NEW YEAR

72/3 K0RWC
Rod Cerkoney, QRP-L #1764.
Fort Collins, CO
da di dah

Date: Mon, 28 Dec 1998 10:24:50 -0600 (CST)
From: Bruce Rattray <rattray@gpfn.sk.ca>
To: Low Power Group <qrp-l@LeHigh.EDU>, QRP-Canada <qrp-canada@lists.gpfn.sk.ca>
Subject: [28214] FOX: Team scores (fwd)
Message-ID: <Pine.LNX.3.95.981228101727.24593A-100000@neale.gpfn.sk.ca>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

...we now have the fox log from N2T0 so I have added these totals to the
scores for hunt #21 - Happy Hogmanay everyone!!!

....N7CQR - fox hunt #21...

The 40 mtr Fox Hunt Team Scores

...the Houston Hounds- 14.650-hounds->K5ZTY,W5SB,KQ5U,KK5LD "CLEAN SWEEP!"

...the Underdogs - 13.244 - hounds -> N4R0A,AB7CE

...the Vibro-Fox Finders - 13.200 - hounds -> WE6W,KU7Y,K2VCO,WS8D

...the Fox Nabbers - 10.901 - hounds -> K0EVZ,W0CH

...the Texas Tarantulas - 10.250 - hounds -> K5LN,N5TW

...the Brass Pounders - 9.250 - hound -> N1FN

...the Kentucky Porch Houndz - 9.000 - still hungry.

...the Northern Lights - 8.567 - hounds -> VE6EWM,VE3FAL,VE5RC,VE2KN

...the Swords - 5.994 - lookin' for pelts.

...the Team Apathy - 4.329 - hound -> K7TQ

...the Jersey Diddles - 2.196 - hungry hounds.

Date: Mon, 28 Dec 1998 09:26:29 -0700 (MST)
From: Chris Trask <ctrask@primenet.com>
To: Brad Hernlem <alihernlem@hotmail.com>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [28215] Re: Dual Gate MOSFET Question
Message-ID: <Pine.BSI.3.96.981228092421.28640C-100000@usr06.primenet.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Mon, 28 Dec 1998, Brad Hernlem wrote:

> I have a question about the functions of the two gates in a dual gate
> MOSFET. I recently acquired several dozen of these devices and don't
> have any specs on them. These look like an MPF-131 described on
> rec.radio.amateur.homebrew by Chuck Adams a few years ago and the pinout
> seems to be the same (maybe). I tested one of these by measuring the
> drain current while adjusting the voltages applied to the gates. This
> was done one gate at a time, holding the other at 0V relative to source.
> The results are as follows:

>
> Voltage Applied Drain Current Drain Current
> To Gate (G1 at 0V) (G2 at 0V)
> -----
> -0.6 1.49 mA 2.09 mA
> -0.5 1.92 2.68
> -0.4 2.37 3.13
> -0.3 2.85 3.53
> -0.2 3.33 3.83
> -0.1 3.82 4.09
> 0.0 4.28 4.30
> 0.1 4.75 4.49
> 0.2 5.22 4.64
> 0.3 5.69 4.79
> 0.4 6.11 4.90

>
>
> As you can see from this data, when G1 is hold at 0V and G2 is varied,
> the change in current follows G2 in a very linear fashion while the
> effect of G1 with G2 at 0V is quite different, with the slopw decreasing
> as the voltage becomes more positive.

>
> Is this normal behavior for a dual gate MOSFET? Should the two gates

> behave differently?
>
> Thanks for your help.

Yes, perfectly normal. The effect of the voltage applied to G1 is with reference to the source, whereas the effect of G2 is with reference with the "virtual" source/drain connection between the two gate regions.

```

      ,-----,
    /  What's all this  \
   / extinct stuff, anyhow? \
  \ -----,-----'
   | /
oo\
(--) \
     \  . ' .
      \  ' '
       \  "
        \  ( )
         \  '-| )__| :. \
          | | | | | \ '
           c__; c__; ' -.. '> .__

```

Circuit Design for the
RF Impaired

Chris Trask / N7ZWY
Principal Engineer
ATG Design Services
P.O. Box 25240
Tempe, Arizona 85285-5240

Technical Editor,
QRP Quarterly
QRP ARCI 9464

Email: ctrask@primenet.com
<http://www.primenet.com/~ctrask>

Graphics by Loek Frederiks

Date: Mon, 28 Dec 1998 09:26:42 -0700
From: KORWC <rwc@frii.com>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [28216] First QRP DX!
Message-ID: <3.0.5.32.19981228092642.007fb100@mail.frii.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Folks!

15 is open to Europe this AM. Heard Spain & worked England! 339 from G3XJS using 5watts.

Heard our Japanese freind Toru/JG1RVN yesterday, but he didn't get my call. I try again later today.

72/3 KORWC
Rod Cerkoney, QRP-L #1764.
Fort Collins, CO
da di dah

Date: Mon, 28 Dec 1998 11:38:07 -0500
From: Zack Lau <zlau@arrl.org>
To: qrp-l@lehigh.edu
Subject: [28217] G-QRP WS
Message-ID: <3687B3EF.7ECF8894@arrl.org>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

26th poor 6 2XQRP Eu mostly 20M
27th fair but late start 3 2XQRP Eu 15M
28th good 11 2xQRP Eu 15M 1419-1551Z
Best catch GB2QRP--Zack W1VT in CT

Date: Mon, 28 Dec 1998 09:06:32 PST
From: "Brad Hernlem" <alihernlem@hotmail.com>
To: ctrask@primenet.com
Cc: qrp-l@lehigh.edu
Subject: [28218] Re: Dual Gate MOSFET Question
Message-ID: <199812281706.JAA29385@f274.hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain

Thanks for the input, Chris.

The circuits that I have seen in which dual gate FETs are used for RF amplifiers all show G2 used for setting the gain and G1 used for the input. Based on the results of my "experiment" I would think that the more linear response of G2 would make that the preferred input. Note that I grounded the non-varied gate through a 1M resistor in each case. Is there any way to verify the pinout of one of these devices? I presume that I got it right but am just wondering.

Also, what is the best way to test for blown gate insulation? Will they conduct if blown?

Am also wondering whether the apparent transconductances that I observed under DC conditions (1000-6000 umhos) look reasonable. The specs that I have seen for dual gate MOSFETs usually indicate at least 8000 umhos but I am unsure of the conditions under which these numbers are obtained.

Thanks.

Brad

>On Mon, 28 Dec 1998, Brad Hernlem wrote:

>

>> I have a question about the functions of the two gates in a dual gate MOSFET. I recently acquired several dozen of these devices and don't have any specs on them. These look like an MPF-131 described on rec.radio.amateur.homebrew by Chuck Adams a few years ago and the pinout

>> seems to be the same (maybe). I tested one of these by measuring the drain current while adjusting the voltages applied to the gates. This was done one gate at a time, holding the other at 0V relative to source.

>> The results are as follows:

>>

Voltage Applied To Gate	Drain Current (G1 at 0V)	Drain Current (G2 at 0V)
----------------------------	-----------------------------	-----------------------------

>> -----

>> -0.6	1.49 mA	2.09 mA
>> -0.5	1.92	2.68
>> -0.4	2.37	3.13
>> -0.3	2.85	3.53
>> -0.2	3.33	3.83
>> -0.1	3.82	4.09
>> 0.0	4.28	4.30
>> 0.1	4.75	4.49
>> 0.2	5.22	4.64
>> 0.3	5.69	4.79
>> 0.4	6.11	4.90

>>

>>

>> As you can see from this data, when G1 is hold at 0V and G2 is varied,

>> the change in current follows G2 in a very linear fashion while the effect of G1 with G2 at 0V is quite different, with the slop decreasing

>> as the voltage becomes more positive.

>>

Content-Type: TEXT/PLAIN; charset=US-ASCII

On Mon, 28 Dec 1998, Brad Hernlem wrote:

> Thanks for the input, Chris.

>

> The circuits that I have seen in which dual gate FETs are used for RF
> amplifiers all show G2 used for setting the gain and G1 used for the
> input. Based on the results of my "experiment" I would think that the
> more linear response of G2 would make that the preferred input. Note
> that I grounded the non-varied gate through a 1M resistor in each case.
> Is there any way to verify the pinout of one of these devices? I presume
> that I got it right but am just wondering.

>

I have seen circuits of late where the signal is input to G2 and G1 is used for control. I would suggest this: Do some experimentation using both methods, and if you have access to a spectrum analyzer look at the intermodulation products.

This would make a very welcome article in QRP Quarterly, something that I would do myself if I had the time.

>

> Also, what is the best way to test for blown gate insulation? Will they
> conduct if blown?

>

It should behave just like a single-gate MOSFET.

>

> Am also wondering whether the apparent transconductances that I observed
> under DC conditions (1000-6000 umhos) look reasonable. The specs that I
> have seen for dual gate MOSFETs usually indicate at least 8000 umhos but
> I am unsure of the conditions under which these numbers are obtained.

>

The Motorola Small-Signal Transistor Databook (1983) lists the transconductance as being 8,000-20,000 with $V_{DS}=15V$, $V_{G2S}=4V$, $I_D=10mA$. It does not list a V_{G1S} , but I suspect that this was adjusted to give the desired I_D . The gain was measured at a frequency of 1kHz.

To get a better picture of DGMOSFET gain characteristics, take a look at a Philips small-signal field-effect transistor databook (SC07). Philips is still introducing new DG devices, and they, in a partnership with Matsushita, developed the first commercial ones back in the 60's:

Okumura, T., "The MOS Tetrode," Philips Technical Review,
Vol. 30, No. 5, 1969, pp. 134-141.

,-----.

Circuit Design for the

..the Brass Pounders - 9.750 - hounds -> N1FN,AK7Y
..the Kentucky Porch Houndz - 9.000 - still hungry.
..the Northern Lights - 8.900 - hounds -> VE3FAL,VE5RC
..the Swords - 5.994 - lookin' for pelts.
..the Team Apathy - 4.329 - hound -> K7TQ
..the Jersey Diddles - 2.196 - hungry hounds.

Date: Mon, 28 Dec 1998 09:38:33 -0800
From: "Michael A. Gipe" <mgipe@reliablemeters.com>
To: <zlau@arrl.org>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>

Subject: [28221] Re: G-QRP WS
Message-ID: <056401be3288\$e6e65b70\$140a0a0a@double_trouble.reliablemeters.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Welcome back, Zack! Good to hear from you! (oh yeah, nice job in the G-QRP, too!)

Mike K1MG

-----Original Message-----

From: Zack Lau <zlau@arrl.org>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Date: Monday, December 28, 1998 8:38 AM
Subject: G-QRP WS

>26th poor 6 2XQRP Eu mostly 20M
>27th fair but late start 3 2XQRP Eu 15M
>28th good 11 2xQRP Eu 15M 1419-1551Z
> Best catch GB2QRP--Zack W1VT in CT

Date: Mon, 28 Dec 1998 11:04:20 -0700
From: Denton Bramwell W7DB <Denton@Bramwell.Org>
To: "'qrp-l@lehigh.edu'" <qrp-l@lehigh.edu>
Subject: [28222] RE: Aluminum Pushup Mast?
Message-ID: <5103124387F8D11199DD00A0C925E4B906293D@SQLMAILSERVER>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"

>>Anyone aware of an aluminum pushup mast (36 to 40 ft) similar to the heavy steel ones?<<

I bought 6 foot nesting sizes of aluminum tubing from Texas Towers, cut 4 1" slits in the one end of each (bandsaw or Dremel tool), and put hose clamps around the slits to compress the tubing. At 2 points on the mast, I put 3 D rings, held in place by hose clamps. I have six parachute cord guy lines. The top end of each has a clip gizmo (sort of like a cheap caribeaner) so that I don't have to tie and untie the guys.

The whole assembly is about 7 feet long, pretty lightweight, and extends to 39 feet.

I usually use it as a 33.5 ft vertical on 20, with 4 33 ft radials, and a tuner right at the base. Works gangbusters. Same basic arrangement would also support a dipole.

I suggest that you make your smallest tubing 3/4", and work out from there. I started with smaller tubing, and it was a too wobbly, until I went to the larger stuff.

Another suggestion.... Kanga may now have their 33 ft fiberglass telescoping mast. I understand it is quite compact and lightweight, and sells for about \$100.

Date: Mon, 28 Dec 1998 10:25:23 -0800
From: "Michael A. Gipe" <mgipe@reliablemeters.com>
To: "QRP-L list" <qrp-l@Lehigh.edu>
Subject: [28223] FS: Icom 735
Message-ID: <057b01be328f\$74c062f0\$140a0a0a@double_trouble.reliablemeters.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

You were hoping for a new rig for Christmas, but all you got was a new pair of furry slippers....

Let me help you out.

For sale:

Icom 735 with internal keyer and 500 Hz CW filter options, plus an SM6 desk mike, all for \$675 plus shipping.

This is one of Icom's best rigs. It covers all bands from 160 to 10, SSB, CW, AM, FM with up to 100 watts out (ouch!) -- easily adjusted to QRP levels. Sensitivity is superb -- ideal for weak signal QRP work. This rig is in excellent condition except for one barely visible scratch on the plastic bezel -- a victim of the Loma Prieta earthquake of '89 (for which this solar-charged battery operated rig was the sole source of disaster news for quite a while). This rig also knows DX, having worked over 100 countries, mostly at 10 watts (sorry! not officially QRP, but evidence of my earlier closet-QRPer tendencies).

This is one of the best rigs I have owned, and I hate to part with it (sob), but all these QRP kits are crowding out the shack, so the Icom must go. I hope it will go to a good home -- maybe yours? Will you promise to treat it well? Operate every day? Keep the dust off the top? Keep the SWR under 3:1?

If so, contact me at mgipe@reliablemeters.com

Mike K1MG

Date: Mon, 28 Dec 1998 13:15:17 -0500
From: "George Heron" <gheron@idt.net>
To: "NJQRP" <NJQRP@njqrp.org>, "QRP-L" <qrp-l@Lehigh.EDU>
Subject: [28224] FB40 Technical Notes [Long]
Message-ID: <012501be3292\$4f5706b0\$8e3984a9@herong.dialogic.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Hi all,

There have been real good responses from everyone building their "Jersey Fireball 40 QRPp Transmitters" (or FB40 for short) ... rigs are getting built on different bands, skeds are being attempted, etc. But no FB-to-FB contacts yet, huh? Remember: the Jersey QRP Club is sponsoring a prize for each of the players in the first FB-to-FB contacts on each band. And there's a FB Sprint coming along in January ... So get those Fireball 40's ordered, built and on the air soon!

Okay, to help on the technical side, our club elmers have been busy with responses to the various technical questions being posed on the lists lately. Here's a collection of notes that might help all you Fireballers:

1) GROUNDING -- Don't forget to bend over the leads and solder to the bottom-side ground plane on a couple of the components. As noted in the manual, you should do this at least on the DC input, the ground-side of the output filters, and the RF output connection too. This establishes a good ground for the important areas of the circuit and electrically ties in the entire bottom-side ground plane to give some good shielding. (The 'rev B' version of the kit will handle this grounding automatically.)

2) LOW POWER & DC DECOUPLING -- In the original 'rev A' FB 40 kit, there is no dc decoupling for the oscillator or 74LS74 TTL divider chips to the output filter and antenna. This means that there is an average 2.5 volt dc signal connected between antenna and ground through the output filter. With simple dipoles or other antennas with no dc continuity this is not immediately a problem. But if folks use antennas with dc connections (like many multiband verticals) or a link-coupled tuner, the oscillator or divider section selected will see a dc short circuit. We doubt that there will be any damage, but the harmonic content may suffer or the chip may not produce the correct output. A simple fix would be to replace the BAND selection jumper with a 0.1 uF disc capacitor. With the optional amplifier in line there **is** dc isolation so this is not an issue.

3) OUTPUT FILTER VALUES -- Some builders have questioned how we obtained the output filter component values for operation on the different bands. The computer program used is one called "L.exe - Low Pass / High Pass Filters, version 1.50", a Wes Hayward program supplied by the ARRL. This is a neat program that automates one of the standard filter calculations in the Handbook to provide all sorts of filters with varying parameters: Butterworth, Chebyshev, Elliptical, variable number of elements, cut-off frequencies, and maximum ripple values. In each case, we chose a 5-element Chebyshev low pass filter with 50-ohm input and output impedance, with 1 dB maximum ripple, and a cut-off frequency at the next higher megahertz value from where we were operating. [e.g., a cut-off frequency of 4 MHz was selected for the 80m filter, etc.] Shown below is a complete listing of the component values for each of the bands. (Note: We had forgotten to list the 20m and 160m band components in the manual. And view the table with a proportional font like Courier to have the columns line up.)

	C4	L1	C6	L2	C5
160m	3400pF	4.3uH	4770pF	4.3uH	3397pF
80m	1700pF	2.2uH	2400pF	2.2uH	1700pF
40m	820pF	1.1uH	1000pF	1.1uH	820pF
20m	450pF	0.6uH	630pF	0.6uH	450pF
10m	230pF	0.3uH	330pF	0.3uH	230pF

4) FILTER CAP QUALITY AT 20m & 10m -- You might need better quality capacitors when attempting to build your output filters for the higher frequencies. At 14 MHz and 28 MHz, the el cheapo disc capacitors are quite lossy and results in a low Q filter. Try using some silver mica caps (or equivalent) and your output power at the higher frequencies might improve.

5) OUTPUT FILTER TYPE -- For the purists among us ... the manual states in a couple of places that the output filter is an "elliptical filter". We originally used this kind of filter in our prototypes but later found just as good results using a 5-element low pass filter. Thus we were able to do away with the extra capacitors in parallel with the inductors (which is the characteristic configuration for an elliptical filter).

6) TOROIDS -- Some questions had come up as to the turns calculation for the L1 and L2 inductors used in the output filter. The equation used in the manual is the standard one for determining the required number of turns around a specific type of toroid core:

$$N = 100 * \text{SQRT} (L_{\text{desired}} / AL)$$

This equation is stated in an excellent reference book: "The Electronic Data Book for Homebrewers and QRPers", by Paul Harden, NA5N (ISBN 0-913945-57-9), as well as in the ARRL Handbook (my 1996 version has it on page 6.25 ... check the index for "toroid" in other versions).

In order to accommodate the greatly varying core permeabilities at different frequencies of use, each core has an inductance index, or "AL". Thus looking up the T37-2 core used in the FB40, you'll find its AL = 40 uH per 100 turns.

So if we wanted the 1.1uH value for our filter inductor, the equation computes to:

$$N = 100 * \text{SQRT} (1.1 / 40) = 16.58$$

And since we can't have fractional windings with toroidal inductors, we rounded this to 16 Turns. Close enough!

7) YET MORE POWER -- One of the builders notes that by using "Advanced CMOS" TTL devices instead of the "Low-power Schottky" ones we used for U2 and U3 (74LS74), we could get effective power transfer from the chips. The AC devices provide an output impedance much closer to the 50-ohms that the output filter was designed for, thus providing a better match and more power to the antenna. If we can find these AC devices at a reasonable price, we may try using them in 'rev C' of the FB40 project.

8) 160M OPERATION -- An alert builder spotted another capability of the FB40: 160m operation! In the interest of time and board space, we decided not to use the second flip-flop gate in U3. If it were connected as in U2b, you could bring the 80m signal out to the unused 5th BAND jumper pads and get your 160m signal out! Note that the 160m filter component values are provided in the table above. Also, note that you'll have to use a higher oscillator frequency (e.g., above 28.800 MHz) in order to operate with the 160m amateur band when it's divided in half 4 times!

Okay, we hope these these technical tips will help you Fireballers in getting your rigs on the air. Remember that you can visit the Fireball website for a complete listing of all news, announcements and ordering information. We've placed the manual on the website, available for the viewing or download (includes schematic and parts layout). And we've recently added a step-by-step photographic documentation section to help you compare your construction to that of a typical unit. The website is at <http://www.njqrp.org/fireball40/>

Hope you all enjoy this \$10 marvel! And hope to hear lots of Fireball40's on the air soon!

72,
-- George Heron, N2APB
n2apb@amsat.org in Sparta, NJ
for the NJ-QRP Club: <http://www.njqrp.org>

Date: Mon, 28 Dec 1998 19:00:58 +0000
From: Peter Larsen <larsenp@cadvision.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [28225] Re: RAC Contest Results - W5VB0
Message-ID: <3687D56A.64C3FCC5@cadvision.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Hi All:

I have had a chance to scrub the log. Here is my final score

	QSOs	Points	Mults
40 CW	14	162	12
40 SSB	163	1454	12
Totals	177	1616	24

Final score 38784

No where near the record but a lot of fun

See you all in the Canada day contest, where I hold the record for
QRP. 211 QSOs 52 mults 100,776 points.
Come out to see if you can break my record.

--

73 es have fun
Peter
VE6YC D021wc

Drinking and calculus don't mix. Never drink and derive!!

Date: Mon, 28 Dec 1998 14:49:58 -0500
From: "Wilford D. Lindsey" <70511.3041@compuserve.com>
To: "INTERNET:Denton@Bramwell.Org" <Denton@Bramwell.Org>, "+Doc W.D. Lindsey/
K0EVZ" <70511.3041@compuserve.com>, //QRP-L Discussion Group <QRP-L@Lehigh.edu>
Subject: [28226] RE: Aluminum Pushup Mast?
Message-ID: <199812281452_MC2-64EA-23C3@compuserve.com>
MIME-Version: 1.0
Content-Transfer-Encoding: 7bit
Content-Type: text/plain; charset=us-ascii
Content-Disposition: inline
Content-Transfer-Encoding: 7bit

Thanks for this posting. I am also always interested in antennas and especially ways to support them temporarily.

YEP...KANGA-US *does* indeed have the 33' fibreglas collapsible mast. I bought two of them and they are fabulous--and complete non-conducting. This allows me to support a 40-Metre Inverted WYE easily in a variety of settings. Highly recommended. I paid about \$100.00+ about \$5.00 S/H.

72/73,
--Doc Lindsey/K0EVZ
DSBF
P.O. Box 7187
Bismarck, ND 58507
E-Mail 70511.3041@compuserve.com

Date: Mon, 28 Dec 1998 14:51:25 -0500
From: Michael Maiorana <mikemo@ibm.net>
To: qrp1 <qrp-1@Lehigh.EDU>
Subject: [28227] Standard Signal Generator
Message-ID: <3687E13D.C8ECCFDF@ibm.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

In the continuing search for more test equipment I've got another "need"
;-)

In aligning my TS-430 they have several sections that require what they call an "SSG". This device is capable of generating RF that is frequency and amplitude stable, with an output impedance of 50 ohms, down to the sub microvolt level. It is also capable of sweeping the frequency.

The question is has anyone used a DDS system (like the PC-VF0) to create such a beast, or is this destined to be a "megabuck" device?

Thanks!

--

72 de ku4qo

Mike Maiorana

Palm Harbor, FL

Date: Mon, 28 Dec 1998 14:50:49 -0500
From: "Dave Maliniak" <dmaliniak@penton.com>
To: njqrp@njqrp.org, qrp-1@lehigh.edu
Subject: [28228] Atlanticon registration update
Message-ID: <852566E8.006CEDA5.00@mail.penton.com>
Mime-Version: 1.0
Content-type: text/plain; charset=us-ascii
Content-Disposition: inline

Folks:

I'm back on line and up to speed again with registrations for the Atlanticon '99 QRP Forum, which will take place concurrently with the Greater Baltimore Hamboree and Computer Fest at the end of March.

If you sent e-mail to either myself or George, N2APB regarding registration for the Forum and *HAVE NOT* received an acknowledgement and a badge number back from me, please resend your name, callsign (if any) and USPS mailing address to me at dmaliniak@penton.com. I think I'm all caught up now following my little computer problem. Please don't resend unless you're sure I haven't responded... I sent out a whole bunch of acknowledgements this morning! If you're still unsure, let me know and I'll get you a number and onto the list. To anyone who's "fallen between the chips," as one correspondent has termed it, I sincerely apologize.

So why come to Atlanticon '99, anyway? Well, there's the Friday night hospitality suite (March 26), the Saturday night building contest and vendors' night, and QRP camaraderie of the highest order for the whole weekend. Saturday's speaker lineup includes the likes of Chuck Adams, K5F0; Dave Benson, NN1G; L.B. Cebik, W4RNL; Joe Everhart, N2CX; Paul Harden, NA5N; and Steve Weber, KD1JV.

You'll need your badge to be eligible for a series of prize drawings, too. Grand prize will be a NorCal 20 transceiver kit, donated graciously by our compadres in the Northern California QRP Club. Other prizes to be drawn for include an Emtech transceiver and an SWL 40+. There may, in fact, be more

To be eligible for these drawings, you must be present and accounted for! So send your name, callsign and snail-mail address to dmaliniak@penton.com and I'll send an acknowledgement with a unique, one-of-a-kind Official Atlanticon Badge Number. We'll have a collector's quality badge waiting for you at the Forum.

We've made arrangements with the Timonium Holiday Inn Select for a discounted room rate. Call the hotel directly for reservations at (410) 252-7373. Remember that we've now negotiated a lower room rate of \$69/night. Please be sure to let them know that you're part of the Atlanticon group. You'll want to reserve a room for both the Friday and Saturday nights (that's March 26 and 27, 1999) to get in on all of the QRP activities. It's my understanding that there are plenty of rooms still available, by the way.

Thanks and 72,
David N2SMH
for the New Jersey QRP Club

Geesh! 2 hours now dadadaddadadadadadadadadadadadad
72, Ed WE6W QRP-Z#106 <http://www.qsl.net/we6w>
Enjoying Ham Radio every day! Santa Rosa, CA.

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com/getjuno.html>
or call Juno at (800) 654-JUNO [654-5866]

Date: Mon, 28 Dec 1998 13:47:51 -0800 (PST)
From: "David D. Meacham" <ddm@datatamers.com>
To: qrp-l@lehigh.edu
Subject: [28230] 11-2-10-meter test data (corrections)
Message-ID: <Pine.LNX.3.96.981228134101.4755B-100000@dt1.datatamers.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

AMers,

My posting of 12 December had errors in items 1) and 2). The values
below are correct (Sorry about that! Hope it didn't cause any problems):

AMers,

I took some measurements on my converted Maxon to try and help another
list member who was getting low output power from his. It occurred to me
that this information might be helpful to others having the same problem,
so here it is:

This rig was converted per Steve Weber's kit, and then had the mods done
per my two recent postings (if you need them, e-mail me.).

Rig was running 4W out into a dummy load. Voltage read with a DVM. My
'scope is a Tek 2225 (50MHz), and I use a 10:1 probe (13pF). Power
supply is regulated at 13.59V under load.

- 1) RF Voltage across R709=5.3V p-p (sine wave with a glitch)
- 2) RF Voltage at junction of C715 & C716=13.4V p-p (good sine wave)
- 3) DC Voltage drop across R999=0.485V. R999 measures 10.0 Ohms, so
current is 48.5mA. Collector side=11.02V, so DC input power is
0.534W for the stage.
- 4) DC Voltage across R706=0.597V.
- 5) Total current drawn by the rig at 13.59V=794mA.

Maybe these data will help you some.

72, Dave, W6EMD

Date: Mon, 28 Dec 1998 16:16:26 -0600
From: David Gauding <david.gauding@bbs.galilei.com>
To: qrp-1@lehigh.edu
Subject: [28231] RE: Aluminum Push-up Mast
Message-ID: <1.5.4.32.19981228221626.0072ac48@bbs.galilei.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hello Chuck,

At the risk of tooting my own horn, check out the "Random Wire Vertical" article in the January 1995 issue of QQ. It's also posted at G3YCC's website along with an update. You'll find a step-by-step guide for building exactly what you are looking for. I bought the 6061-T6 tubing from Mosley Antenna here in St. Louis. Other builders have told me that similar tubing bought from Texas Towers works well.

With a few extra tubing sections the RWV will extend to 42.5' using just the single guy set at the 6' level. In addition to holding a lightweight doublet at that height can serve as a dandy 5/8 wave vertical on 20M.

The ultimate version of the RWV extends to 52' but requires several super-lightweight aluminum sections for the final 10'. You'll need two guy sets for this extension unless it is a dead calm day. Even then it tends to tip a bit to one side. I refer to this version as the "Nose Hair Special" given its height and the usual posture of onlookers! <g>

The RWV in several variations was my main portable antenna and/or antenna support from the mid-80's until the St. Louis Vertical concept developed a few years ago.

Hope this helps.

Best regards,

de Dave, NF0R nf0r@slacc.com

Date: Mon, 28 Dec 1998 17:30:57 -0500
From: dfirlik@juno.com
To: qrp-1@Lehigh.EDU
Subject: [28232] Dayton Hamvention
Message-ID: <19981228.173115.13166.0.dfirlik@juno.com>

On Sun, 27 Dec 1998 23:12:43 -0500 Hank Kohl K8DD <k8dd@contesting.com>
writes:

>The Dayton Hamvention is:
>May 14 15 16 17 and I assume
> TH FR SA SU

The 1999 Dayton Hamvention is May 14, 15 and 16....Friday thru Sunday.

Dayton Hamvention info can be found on the web at
<<http://www.hamvention.org>>

72/73

Don K8AQZ
Grand Rapids, MI

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com/getjuno.html>
or call Juno at (800) 654-JUNO [654-5866]

Date: Tue, 29 Dec 1998 07:34:12 +0900
From: "Toru Kato JG1RVN" <jg1rvn@inv.co.jp>
To: "QRP-I ML" <qrp-1@Lehigh.EDU>
Subject: [28233] Re: First QRP DX!
Message-ID: <199812282233.HAA14814@inv.co.jp>
MIME-Version: 1.0

Content-Type: text/plain; charset=ISO-2022-JP
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Hello! This is JG1RVN Toru in Tokyo.

K0RWC> Heard our Japanese freind Toru/JG1RVN yesterday, but he didn't
K0RWC> get my call. I try again later today.

Oh,Rod! You called me! Thanks.
I will try 21060 or 14060 around 23:00-00:00 UTC.

Yesterday I worked 8P9EM (15m band),ZK3RW (40m band),and KH6 KL7
W2 W7 W0 HA from TOKYO, using OHR-500 plus DD-1.
Antenna is multi-band yagi, 4ele yagi for 15/20m band and rotaly
dipole for 40m, 25 meters high above the ground.

I hope to see you on the air soon.
Let's try and enjoy QRP DX !

72 from Tokyo

Toru Kato JG1RVN
jg1rvn@inv.co.jp

Date: Mon, 28 Dec 1998 17:57:26 -0500
From: Bruce Muscolino <w6toy@erols.com>
To: dfirlik@juno.com
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [28234] Re: Dayton Hamvention
Message-ID: <36880CD6.22AC@erols.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

While you're right for the Hamvention itself, the Fourth Day in May, the
qrp Technical Conference is held on Thursday. Don't miss it if you can!

73

Date: Mon, 28 Dec 1998 18:26:03 -0500
From: "Wilford D. Lindsey" <70511.3041@compuserve.com>

To: //QRP-L Discussion Group <QRP-L@Lehigh.edu>, "+Doc W.D. Lindsey/K0EVZ"
<70511.3041@compuserve.com>
Subject: [28235] K0EVZ FOX Log (final)
Message-ID: <199812281828_MC2-64E0-CAEC@compuserve.com>
MIME-Version: 1.0
Content-Transfer-Encoding: 7bit
Content-Type: text/plain; charset=us-ascii
Content-Disposition: inline
Content-Transfer-Encoding: 7bit

Gang:

Here is the final log for 12/25/98. Many thanks again to all who dropped by during the evening. Sorry if I missed someone, but conditions were a challenge--lots of QSB, QRM and QRN at times. Was able to complete each QSO but at times it took multiple exchanges :-).

I spent probably 20-25 minutes calling CQ FOX. Wow! Also was forced to make a series of QSYs at one point to get out from under QRM. Thanks to everyone for finding the new frequency quickly.

Setup was the new OHR500 at just under 5 watts, Antenna was an old Antennas West TNT/2 Windom at 30 feet or so. Tuner was an Emtech ZM-2 built by Roy Gregson late in his life.

Again thanks one and all for dropping by. Best wishes for 1999. --Doc

QSO#	Time	Callsign	RST	State	Name	NR/PWR
=====	=====	=====	===	=====	=====	=====
01	0101	N1FN	559	CO	Marshall	153
02	0103	W5JAY	589	AR	Jay	1201
03	0105	KU7Y	579	NV	Ron	17
04	0105	K8CV	569	MI	Walt	935
05	0106	CG5VA	569	SK	Pete	46

06	0108	W5YR	559	TX	Geo	1373
07	0109	VE6EWM	569	AB	Earl	1076
08	0110	AB8DF	559	MI	Ed	1444
09	0112	W0CH	5NN	MO	Dave	618
10	0103	W5TB	569	TX	Doc	673

11	0115	N6MM	579	CA	Harvey	5W
12	0116	K1QM	559	MA	Joel	337
13	0117	K2SJB	559	NY	Dave	757
14	0118	WE6W	559	CA	Ed	1068
15	0120	N1TP	549	FL	Tom	1317

16	0121	WD8KQY	589	OH	Gary	446

17	0122	K5ZTY	589	TX	Bill	473
18	0123	AB5WX	579	TX	Dave	1718
19	0124	NA3V	449	PA	Jim	5W
20	0125	W4VCT	579	KY	Pete	1721

21	0126	N4ROA	559	VA	Dan	970
22	0128	WW7Y	559	UT	Steve	94
+++SEVERAL QSY's++++						
23	0140	VE5RC	559	SK	Bruce	886
24	0148	N5TW	339	NM	Tom	1474
25	0151	AF5Z	569	TX	Bob	984

26	0154	K5LN	559	TX	Bill	1794
27	0156	W5TFB	559	TX	Jack	282
28	0157	KK5LD	579	TX	Dan	5W
29	0159	AE2T	559	NY	Al	166
30	0200	N7MFB	569	WA	Bill	715

31	0201	N50N	599	NM	Gary	770
32	0202	NQ7X	589	AZ	Floyd	343
33	0203	K7TQ	559	ID	Randy	102
34	0204	K5UBS	589	TX	Oscar	1733
35	0207	AK1P	569	CA	Paul	284

36	0208	KE6DKH	569	AR	Willie	1707
37	0211	K4BYF	569	FL	Jack	1782
38	0212	N2TO	549	NY	Kevin	323
39	0214	K10J	599	TX	OJ	732
40	0216	K50I	559	NM	Tim	73

41	0217	K2VCO	559	CA	Vic	725
42	0219	KQ5U	589	TX	Terry	1603
43	0221	AB0GO	589	CO	Dave	785
44	0223	AB7MY	579	AZ	Gary	571
45	0224	W5HNS	569	TX	Henry	178

46	0225	W5FN	559	TX	Tim	586
47	0226	N2CX	559	NJ	Joe	97
48	0228	KA5T	559	TX	Larry	89
49	0234	N0AR	559	MN	Scott	1455
50	0235	W2SCF	559	NJ	Dick	1613

51	0236	K6VNX	569	CA	Arlen	5W
52	0240	AA6R	559	CA	Gary	406
53	0242	NA1XX	549	MA	Mike	1588
54	0244	K2VT	549	NJ	Randy	1804
55	0245	WZ2T	559	NY	Rick	122

56	0247	VE7CQK	559	BC	Paul	20
57	0249	N2ZHY	569	NJ	David	2W
58	0251	KG2LO	559	NJ	Roland	1445
59	0254	KI7MN	559	AZ	Bob	271
60	0257	K2VS	439	NJ	Carol	1805

Date: Mon, 28 Dec 1998 18:31:11 EST
 From: we6w@juno.com (Ed Loranger)
 To: qrp-1@lehigh.edu
 Subject: [28236] QRM on 7040 still there... Bummer.
 Message-ID: <19981228.153107.8263.1.we6w@juno.com>

Looks like I'm going to have a horrible time in the novelty sprint tonight. 2 months planning and all year looking forward to these few days of the contest, and now this.

Fortunately I can switch the TX/RX between 7039.3 and 7040.0 so will most likely be transmitting on 7039.3 unless this guy gets his paddle fixed..... Lots of complainers on the air too!

Hope it is only Northern California that is being taken out.

I think he's either QRP or farther away because he's only 569. A good sig!

-Ed

72, Ed WE6W QRP-Z#106 <http://www.qsl.net/we6w>
 Enjoying Ham Radio every day! Santa Rosa, CA.

You don't need to buy Internet access to use free Internet e-mail.
 Get completely free e-mail from Juno at <http://www.juno.com/getjuno.html>
 or call Juno at (800) 654-JUNO [654-5866]

Date: Mon, 28 Dec 1998 18:32:47 -0500
 From: "Gene Hall" <evhall@ix.netcom.com>
 To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
 Cc: <wa4hhp@amsat.org>

Subject: [28237] Making PC Boards
Message-ID: <002201be32ba\$625201c0\$28abbacd@evhall.ix.netcom.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

In moving to SMD components I find I must leave the "tape-and-etch" method of making PC Boards and move into another approach.

I have been reviewing some threads on the web that address the "iron-on" and the photo-resist method. Some of the data is contradictory but I kind of expected that as everyone brings there own expertise and techniques to the task and the results vary accordingly.

Since this is the most active group of Ham homebrewers that I know of I'd appreciate your recommendations on the best methos you have found and sources for the products needed.

I want to be able to handle traces for SOIC types of IC packages so I suspect that the photo-resist approach will be the best but I'm open-minded.

By the way, I am using the Eagle Lite schematic & board program that yopu can download from www.cadsoftusa.com and legally use for your hobby to develop the printed artwork.

72/73 Gene wa4hhp@amsat.org

End of QRP-L Digest 1319
